Work Order ID 83309

Tuesday, April 17, 2012 1:13:12 PM

83309

Item ID: D6101-001

Accept *N900040100*

Setup Start *NS1*

Stop *NS2*

Revision ID:

Item Name: Saddle Billet

Start Date: 4/17/2012 **Start Qty:** 40.00 *40*

Required Date: 4/25/2012 **Req'd Qty:** 40.00 *40*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ________ **Date:** 12-04-17 **Tooling:** ________ **Date:** ________

QC: ________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D6101	Rev B

100

100

Purchasing

Purchasing

PURCHASING — 0.00 — 12-04-17

Memo — 0.00

Issue P/O: 167613

a)Description: Alluminum billet

b) 6.00" x 6.250" x 2.00" thick ✓

c) Tolerance on length are +0.030"/-0.000"Æ+/-0.008" ✓

d) Grain direction along 6.00" length ✓

e) Material: 7075-T7351 (QQ-A-250/12)

f)Material certification required

110

110

Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs — 0.00 — 12/05/01

Memo — 0.00

Ensure material certification is attached

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83309

Tuesday, April 17, 2012 1:13:13 PM

83309

Item ID: D6101-001 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID:

Item Name: Saddle Billet **Stop** *NS2*

Start Date: 4/17/2012 **Start Qty:** 40.00 *40* **Cust Item ID:**

Required Date: 4/25/2012 **Req'd Qty:** 40.00 *40* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing	0.00	ank 12/05/03			40	∅		
	Memo Ensure Material certification comply to Dwg D	0.00							
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: MAT ~~4B~~ 42	0.00	ank 12/05/03			40	∅		
	Memo	0.00							
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release	0.00					12/5/3		[signature]
	Memo	0.00							

12-05-3

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 17, 2012 1:13:17 PM

Work Order ID: 83309 *83309*

Parent Item: D6101-001 *D6101-001*

Parent Item Name: Saddle Billet

Start Date: 4/17/2012 **Required Date:** 4/25/2012

Start Qty: 40.00 **Required Qty:** 40.00

Comments: IPP B: 01.05.04New IsueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001P *D6101-001P* 7075-T7351 2X6X6.25		Purchased	No			110	Each	50.0000	1 **	40			

Location	Loc Qty	Loc Code
MAT040	50	
81923	50	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

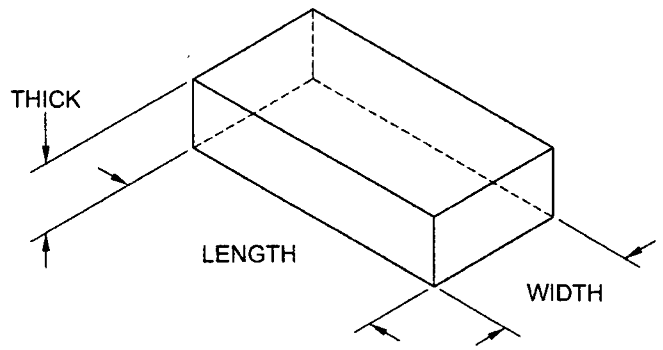
Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

SPECIFICATION CONTROL DRAWING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 83309
RL 12-04-17

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

△B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

	Part No.	Alloy	Length	Width	Thick	Grain Direction
	D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
	D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
	D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
	D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
	D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
	D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
	D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
	D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
△B	D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED 09/07/15/WB

REV.	DESCRIPTION	BY	DATE
B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30

DESIGN	CP	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	[signature]	DRAWING NO. D6101 — REV. B — SHEET 1 OF 1
MFG. APPR.	[signature]	
APPROVED	[signature]	TITLE: SADDLE BILLET, 7075 — SCALE: NTS
DE APPR.	[signature]	
DATE	09.04.23	

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

No de Formulaire d'Emballage / Shipment No:1289214

Expédié de / Ship From:	Vendu à / Sold To:	Expédié à / Ship To:	Livré à / Deliver To:
A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	WILL CALL-MONTREAL 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA

Date d'expédition / Date Shipped	F.O.B.	Modalités de transport / Freight Terms	Transporteur / Carrier	No du Bon de connaissement / BOL No
27-APR-2012	ORIGIN	Prepaid	MANITOULIN	1289214-2

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch - MON

N° de commande / Order No	N° de ligne Line No	N° d'article / Item No	Description
2141745	1	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) X 6 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12

N° de bon de commande / Purchase Order No	N^{bre} de pièces / Part Number	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
16743	YOUR ITEM NUMBER: D6101-001	40.00 PCS	40.0000 PCS

Détails / Details

N° de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièces / PCS	Largeur (Pouce)/ Width (IN)	Longueur (Pouce)/ Length (IN)	Qté expédiée/ Shipped Qty(LBS)
117569244	CONSTELLIUM ROLLED PRODUCTS	213721		40			309.66

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.
These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 27-APR-2012 02:25:50 PM

Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.			
Ce matériel a été reçu et inspecté par Reviewed by Authorized Castle Metals Representative:		Date:	Name:

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Constellium

Accredited Nadcap Materials Testing Laboratory

CERTIFIED TEST REPORT

Constellium Rolled Products Ravenswood, LLC

A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS

67216

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL

60523

A M CASTLE 103601 4776 INCLUSION SERIAL#: 20120103103601

CUSTOMER PURCHASE ORDER NO. & ITEM				Constellium ORDER NO.	
135513				050-981421	
ALLOY	CLAD.	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500

ITEM ORDERED
DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL

CUSTOMER SPECIFICATION		
AMS-QQ-A-250/12		
PART NUMBER	B/L NUMBER	DATE SHIPPED
752237	103600	01/05/12
WEIGHT SHIPPED	NO. OF PIECES	GOVT. CONTRACT NO.
12,865	9	

CERTIFICATION

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

Constellium Rolled Products Ravenswood, LLC
Rt 2 South, Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

Rodney J. Felty

Rodney J. Felty - Laboratory Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I. MIN.	ULTIMATE STRENGTH K.S.I. MAX.	YIELD STRENGTH K.S.I. MIN.	YIELD STRENGTH K.S.I. MAX.	ELONGATION % MIN.	ELONGATION % MAX.	COND % IACS MIN	COND % IACS MAX
			***** T7351				*****			
213721	LT	2	72.8	73.0	62.2	62.3	12.0	12.0	40.1	40.2
All material contained in lot 213721 was cast and manufactured in the USA.										
213731	LT	2	73.1	73.2	62.3	62.5	12.0	12.0	40.6	40.8
All material contained in lot 213731 was cast and manufactured in the USA.										
213751	LT	2	73.8	74.2	63.3	63.7	11.5	11.5	39.7	39.9
All material contained in lot 213751 was cast and manufactured in the USA.										

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS

GAMPS 9101 100% SONIC MINUS DEAD ZONE CLASS A

AMS4078G,ASTM-B209-10,MMS159P,CMMP025;AMC CA-15413A R

CHEM COMP ALLOY	SILICON MIN.	SILICON MAX.	IRON MIN.	IRON MAX.	COPPER MIN.	COPPER MAX.	MANGANESE MIN.	MANGANESE MAX.	MAGNESIUM MIN.	MAGNESIUM MAX.	CHROMIUM MIN.	CHROMIUM MAX.	ZINC MIN.	ZINC MAX.	TITANIUM MIN.	TITANIUM MAX.	OTHERS EACH MAX.	OTHERS TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION																		

ALUMINUM REMAINDER

A.M. CASTLE & CO. AEROSPACE KS A.41

Constellium

Accredited Nadcap Materials Testing Laboratory

CERTIFIED TEST REPORT

Constellium Rolled Products Ravenswood, LLC

A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS

67216

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL

60523

A M CASTLE 103601 4776 INCLUSION SERIAL#: 20120103103601

CUSTOMER PURCHASE ORDER NO. & ITEM				Constellium ORDER NO.	
135513				050-981421	
ALLOY	CLAD.	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500

ITEM ORDERED: DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL

CUSTOMER SPECIFICATION: AMS-QQ-A-250/12

PART NUMBER	B/L NUMBER	DATE SHIPPED
752237	103600	01/05/12

WEIGHT SHIPPED	NO. OF PIECES	GOVT. CONTRACT NO.
12,865	9	

CERTIFICATION

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

Constellium Rolled Products Ravenswood, LLC
Rt 2 South, Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

Rodney J. Felty

Rodney J. Felty - Laboratory Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IACS	
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX
AMS STD 2154, PS21211L, ASTM B594, BSS 7055										

CHEM COMP ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION																		

ALUMINUM REMAINDER

Constellium

Accredited Nadcap Materials Testing Laboratory

CERTIFIED TEST REPORT

Constellium Rolled Products Ravenswood, LLC

A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS

67216

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL

60523

CUSTOMER PURCHASE ORDER NO. & ITEM				Constellium ORDER NO.	
135513				050-981421	
ALLOY	CLAD.	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500
ITEM ORDERED					
DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL					
CUSTOMER SPECIFICATION					
AMS-QQ-A-250/12					
PART NUMBER		B/L NUMBER		DATE SHIPPED	
752237		103600		01/05/12	
WEIGHT SHIPPED	NO. OF PIECES	GOVT. CONTRACT NO.			
12,865	9				

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Rt 2 South, Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

Rodney J. Felty

Rodney J. Felty - Laboratory Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IACS	
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX

ACTUAL CHEMICAL COMPOSITION

213721 C SI= 0.07 FE= 0.14 CU= 1.38 MN= 0.04 MG= 2.60
CR= 0.20 ZN= 5.61 TI= 0.02 ZR= 0.01
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

213731 C SI= 0.07 FE= 0.14 CU= 1.38 MN= 0.04 MG= 2.60
CR= 0.20 ZN= 5.61 TI= 0.02 ZR= 0.01
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

213751 C SI= 0.07 FE= 0.15 CU= 1.43 MN= 0.05 MG= 2.63
CR= 0.20 ZN= 5.52 TI= 0.03 ZR= 0.01
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

CHEM COMP

ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION																		

ALUMINUM REMAINDER

P-860-155D (06/11)

Constellium

Accredited Nadcap Materials Testing Laboratory

CERTIFIED TEST REPORT

Constellium Rolled Products Ravenswood, LLC

A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS

67216

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL

60523

A M CASTLE 103601 4776 INCLUSION SERIAL#: 20120103103601

CUSTOMER PURCHASE ORDER NO. & ITEM				Constellium ORDER NO.	
135513				050-981421	
ALLOY	CLAD.	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500

ITEM ORDERED
DIST. AEROSPACE/MILITARY
SPEC PLATE, SAWED MILL

CUSTOMER SPECIFICATION
AMS-QQ-A-250/12

PART NUMBER	B/L NUMBER	DATE SHIPPED
752237	103600	01/05/12

WEIGHT SHIPPED	NO. OF PIECES	GOVT. CONTRACT NO.
12,865	9	

CERTIFICATION

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

Constellium Rolled Products Ravenswood, LLC
Rt 2 South, Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

Rodney J. Felty

Rodney J. Felty - Laboratory Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IACS	
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE.
THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT.

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399.

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557.

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"

CHEM COMP

ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION																		

ALUMINUM REMAINDER